21st IEEE Real Time Conference - Colonial Williamsburg



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Exascale HPC Technologies –Performance, Portability, and Scalability

Monday 11 June 2018 09:00 (40 minutes)

I will survey recent and emerging HPC technologies appearing in the marketplace, such as GPU's and CPU's, and highlight the challenge of targeting all of these efficiently with a single program or simulation code. Some consideration will be given to the single node performance, multi-mode scaling performance and the use of modern 100Gbit/s+ interconnects. The effects of variable node performance (dynamic frequency scaling, Linux VM) on the collective throughput of large numbers of nodes will also be discussed.

Author: BOYLE, Peter (University of Edinburgh)Presenter: BOYLE, Peter (University of Edinburgh)

Session Classification: Invited talk High Performance Computing